

whose content of comonomers is in the range from 0.7 to 1.4% by weight if the only comonomer present in the propylene copolymers is ethylene, or whose content of comonomers is in the range from 0.7 to 3.0% by weight if at least one C<sub>4</sub>-C<sub>10</sub>-1-alkene is present as comonomer, and whose cold-xylene-soluble fraction is from 1.0 to 2.5% by weight if ethylene is present as a comonomer in the propylene copolymers, or whose cold-xylene-soluble fraction is from 0.75 to 2.0% by weight if the only comonomers present are C<sub>4</sub>-C<sub>10</sub>-1-alkenes, are melt extruded through a die to give a film, the extruded film is cooled to from 100 to 20°C so that it solidifies, the solidified film is stretched in the longitudinal direction at from 80 to 150°C with a stretching ratio of at least 4:1 and in the transverse direction at from 120 to 170°C with a stretching ratio of at least 5:1.

2. (amended) A process as claimed in claim 1 in which said random propylene copolymers comprise exclusively ethylene as comonomer.

3. (amended) A process as claimed in claim 1 in which said random propylene copolymers comprise 1-butene as comonomer.

4. (amended) A process as claimed in claim 1 in which said random propylene copolymers have a Q<sub>5</sub> value greater than or equal to 200, where Q<sub>5</sub> is given by

$$Q_5 = 1000 \times \frac{\mu(T_m)}{\mu(T_m - 5K)}$$

and

b1

$\mu(T_m)$  is the elongational viscosity of the random propylene copolymer at the lowest temperature at which the copolymer is fully molten, and  $\mu(T_m-5K)$  is the elongational viscosity at a temperature which is lower by 5K, and the elongational viscosities are determined 2 seconds after stretching begins at a constant strain rate (Hencky strain rate)  $\epsilon$  of  $0.2 \text{ s}^{-1}$ .

5. (amended) A process as claimed in claim 1 in which said random propylene copolymers have a PI (Processability Index) of greater than 18, where the PI is determined from the formula

$$\text{PI} = \ln(SH + 1) \cdot (\ln Q_3 + \ln Q_5),$$

Q<sub>5</sub> is given by

$$Q_5 = 1000 \times \frac{\mu(T_m)}{\mu(T_m-5K)}$$

and Q<sub>3</sub> is given by

$$Q_3 = 1000 \times \frac{\mu(T_m)}{\mu(T_m-3K)},$$

$\mu(T_m)$  is the elongational viscosity at the lowest temperature at which the copolymer is fully molten,  $\mu(T_m-5K)$  is the elongational viscosity at a temperature which is lower by 5K and  $\mu(T_m-3K)$  is the elongational viscosity at a temperature which is lower by 3K, and the elongational viscosities are determined 2 seconds after stretching begins at a constant strain rate (Hencky strain rate)  $\epsilon$  of  $0.2 \text{ s}^{-1}$ ,

b1  
and the factor SH (Strain Hardening) is the ratio of the maximum gradient of the curve of elongational viscosity plotted against time on a double logarithmic scale for temperatures less than  $T_m - 5K$  to the gradient of the elongational viscosity curve 1 second after stretching begins at a constant Hencky strain rate  $\dot{\epsilon}$  of  $0.2\text{ s}^{-1}$  at a temperature of  $T_m - 5K$ .

6. (amended) A process as claimed in claim 1, in which said random propylene copolymers are produced by polymerization in the gas phase at from 50 to  $100^\circ\text{C}$  and at a pressure of 15 to 40 bar in the presence of a Ziegler-Natta catalyst system comprising

- a) a titanium-containing solid component comprising at least one halogen-containing magnesium compound and an electron donor,
  - b) an aluminum compound and
  - c) at least one other electron-donor compound,
- and the ratio of the partial pressures of propylene and of the comonomers is adjusted to from 400:1 to 15:1 and the molar ratio of the aluminum compound b) and the other electron-donor compound c) is adjusted to from 20:1 to 2:1.

Cancel claims 7-10.